

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number  
**WO 2005/058717 A1**

(51) International Patent Classification<sup>7</sup>: **B65D 19/38**,  
19/31, G01B 11/03, G06F 19/00

[AU/AU]; Unit 12, 175 Gibbes Street, Chatswood, NSW 2067 (AU). LUCAS, Michael, David [AU/AU]; Unit 12, 175 Gibbes Street, Chatswood, NSW 2067 (AU).

(21) International Application Number:  
PCT/AU2004/001776

(74) Agent: MOLINS, Michael; Suite 5, Level 6, 139 Macquarie Street, Sydney, NSW 2000 (AU).

(22) International Filing Date:  
17 December 2004 (17.12.2004)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2003907024 19 December 2003 (19.12.2003) AU

(71) Applicant (for all designated States except US): BRAMBLES AUSTRALIA LIMITED [AU/AU]; Level 40 Gateway, 1 Macquarie Place, Sydney, NSW 2000 (AU).

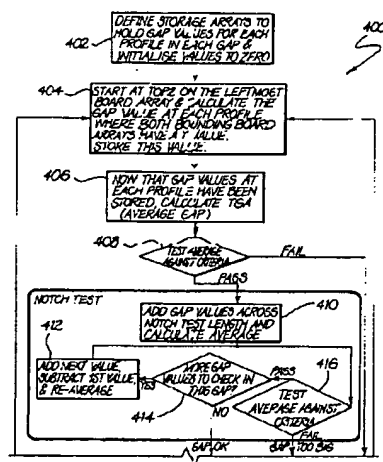
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

(72) Inventors; and

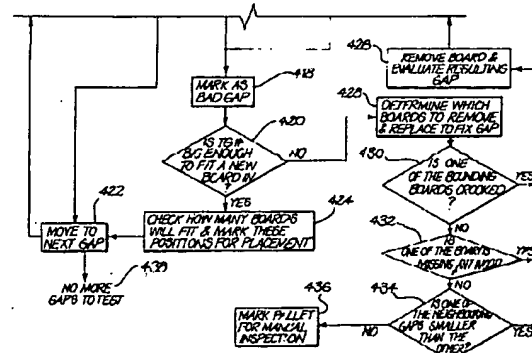
(75) Inventors/Applicants (for US only): TOWNSEND, Steve

[Continued on next page]

(54) Title: SOFTWARE AND METHODS FOR AUTOMATED PALLET INSPECTION AND REPAIR



(57) Abstract: An automated pallet inspection and repair apparatus comprises an inspection station and a repair station. The inspection station comprises a laser that illuminates a pallet, a camera that collects the reflected light and a computer system. The computer system analyses the output of the camera and acquires the pallet's geometry and topography. The design of the pallet is determined by the computer software. A decision to repair the pallet is made by comparing acquired pallet data against the design criteria. If the pallet needs repair, a recipe of repair steps is constructed by inspecting each of the pallet's elements. The recipe is transmitted to the automated repair station.





European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declaration under Rule 4.17:**

— *of inventorship (Rule 4.17(iv)) for US only*

**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*